

Patent Claims

1. Rotor for a turbo engine, in particular for a gas turbine, having a rotor base body (11; 27) and a plurality of rotor blades (12; 28) distributed over the circumference of the rotor base body (11; 27) characterized in that, the rotor base body is formed by at least one ring-shaped element (13, 14; 29) made of a metal matrix composite material, and the rotor blades (12; 28) are attached by footing (18; 34) to the rotor base body (11; 27) in such a way that the footing is positioned in a fiber-free area of the rotor base body.
2. Rotor according to Claim 1, characterized in that, the rotor base body (11) is made of two ring-shaped elements (13, 14) each made of a metal matrix composite material (MMC material), the rotor blades (12) being attached to the radially outer end between the two ring-shaped elements (13, 14).
3. Rotor according to Claim 2, characterized in that, the rotor blades (12) are each positioned with a platform (20) between radially outer peripheral protrusions (38) on the two ring-shaped elements (13, 14), the axial ends of the platforms (20) being in contact with the peripheral protrusions (38).
4. Rotor according to Claim 2 or 3, characterized in that, the two ring-shaped elements (13; 14) each have at least one fiber-reinforced area, the blade footing (18) of the rotor blades (12) being positioned between the fiber-reinforced areas of the two ring-shaped areas.
5. Rotor according to any one or more of Claims 2 through 4, characterized in that, the footing (18) of the rotor blades (12) engages in a corresponding recess and/or indentation (19) in the area of the ring-shaped elements (13, 14).

6. Rotor according to any one or more of Claims 2 through 5, characterized in that, the two ring-shaped elements (13, 14) are detachably joined together on radially inside sections (22, 23).
7. Rotor according to Claim 6, characterized in that, the radially inside sections (22, 23) at which the two ring-shaped elements (13, 14) are joined together are designed to be fiber-free.
8. Rotor according to Claim 6 or 7, characterized in that, the two ring-shaped elements (13, 14) are joined together by screw connections (25) on radially inside sections (22, 23).
9. Rotor according to Claim 1, characterized in that, the rotor base body (27) consists of a ring-shaped element (29) made of a metal matrix composite material (MMC material), with axially outer sections (30, 31) of the ring-shaped element (29) being fiber-reinforced with a section (33) in between being designed to be fiber-free, and with the footing (34) of the rotor blades (28) being secured in the fiber-free section (33).
10. Rotor according to Claim 9, characterized in that, boreholes (35) running in the radial direction are created in the fiber-free section (33) of the ring-shaped element (29), each rotor blade (28) being anchored in a borehole (35) with footing (34).
11. Rotor according to Claim 9 or 10, characterized in that, each rotor (28) can be inserted into a corresponding borehole (35) from the inside end radially, beginning with an end of the rotor blade (36) that is on the outside radially, inserting the rotor blade into the borehole until the footing (34) comes to rest against a stop (37) integrated into the borehole (35).
12. Rotor according to Claim 10 or 11, characterized in that, the rotor blades (28) are secured in the boreholes (35) by a retaining ring, whereby the retaining ring acts on the radially

inside end of the boreholes and presses the rotor blades (28) radially outward.